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Polyamide melt gelation prevention - using
o-phenylenediamines and alkali-metal cpds as stabilisers

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Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 49053945	A	19740525			197452	B
JP 76025066	B	19760728			197634	

Priority Applications (No Type Date): JP 7297561 A 19720927

Abstract (Basic): JP 49053945 A

Molten polyamides contg. phosphinate, phosphonite, phosphonate, and/or phosphite ester(s), free acid, and/or salt(s). 100-500 mole% (based on the P cpds.) alkali metal cpd.(s), and 0.01-2 wt. % (based on

polyamide) o-phenylene-diamine (I) and/or its deriv. were resistant to gelation during melt-spinning. In an example, a mixt. of 500 g m-xylylenediammonium adipate, 1000 g water, 0.45% (based on polyamide)

(I), 200 ppm (based on P and polyamide) phenyl-phosphinic acid and 200 mole% (based on P) NaOH was poly-condensed at 260 degrees/100 mm to give poly(m-xylyleneadipamide) with relative viscosity 2.22 (25 degrees, 1 g/dl in 96% H₂SO₄) and gelation time in 270 degrees steam 105 hr., compared with 2.27 and 35, resp., for a similar polyamide prep'd. without NaOH.

Title Terms: POLYAMIDE; MELT; GEL; PREVENT; ALKALI; METAL; COMPOUND; STABILISED

Derwent Class: A23; E11; E14; F01

International Patent Class (Additional): C08K-003/32; C08K-005/51; C08L-077/06

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